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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,800	11/14/2003	Yukiyoshi Sunada	CH2893	4196
23906 7590 11/21/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER MIGGINS, MICHAEL C	
			ART UNIT 1794	PAPER NUMBER
			NOTIFICATION DATE 11/21/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary

Application No.

10/713,800

Applicant(s)

SUNADA ET AL

Examiner

Michael C. Miggins

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

REJECTIONS WITHDRAWN

1. There are no rejections withdrawn.

REJECTIONS REPEATED

2. All of the rejections maintained in the non-final rejection of 5/31/07, page 2, paragraph 3 are repeated for the reasons of record.

NEW REJECTIONS

3. There are no new rejections.

ANSWERS TO APPLICANT'S ARGUMENTS

4. Applicant's arguments of 8/31/07 have been carefully considered but are deemed unpersuasive.

Applicant has argued that to combine Diaz and Iwato all of the elements of each must be used. However, applicant uses the term "comprising" in the claims and such a term does not exclude the use of additional elements. Furthermore, it well within the level of one of ordinary skill in the art to replace one coating for another or to simply add an additional material to the coating of a primary reference.

Applicant has argued that glass windows do not present the problems addressed by applicant's claimed invention. However, Iwato discloses that their invention can be coated on any substrate (page 6, lines 6-16) under high temperature conditions for the

purpose of providing improved water and oil repellency. Applicant has yet to illustrate how water and oil repellency are not desirable properties especially since Diaz states that ink solutions wet the surfaces causing failure of the ink jet and poor printing performance (column 1, lines 29-31). Furthermore, the substrates of Diaz are Silicon surfaces (column 1, lines 28-34) and Iwato specifically discloses the coating of Silicon surfaces (page 6, lines 20-26).

Applicant has argued that Diaz discloses a film comprising two ingredients. However, applicant's claims do not exclude two ingredients. Applicant also argues that Diaz discloses coating of the nozzle by (RF) glow discharge. However, the method by which a product is formed is not germane to the patentability of a product in a product claim (MPEP 2113) and applicant's claims do not exclude (RF) glow discharge.

Applicant has argued that the examiner appears to ignore the fluorocarbon silanes of Diaz. However, the examiner has merely set forth that it would have been obvious to one of ordinary skill in the art to use the materials of Iwato in the invention of Diaz to provide improved water and oil repellency.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA

1971). Applicant's disclosure is not needed for one of ordinary skill in the art to conclude that the coatings of Iwato provide improved water and oil repellency to silicon substrates such as those of Iwato. Furthermore, applicant has cited both Diaz and Iwato as relevant prior art.

With regard to obviousness applicant has argued that:

- 1) Diaz fails to disclose nozzle having a coating of fluorocarbon silane as defined in the claims. However, Iwato discloses applicant's exact fluorocarbon silane for coating silicon substrates.
- 2) Diaz discloses nozzle having coating comprising fluorocarbon silane and perfluorocarbon and applicant fails to use perfluorocarbon. However, applicant's claims do not exclude perfluorocarbon and it is well within the level of one of ordinary skill in the art to replace the coatings of Diaz with those of Iwato or to add the coating materials of Iwato to those of Diaz in order to provide improved water and oil repellency.
- 3) Diaz discloses depositing the perfluoroalkane as a separate layer over the silane layer. However, applicant's claims do not exclude a further layer and it is well within the level of one of ordinary skill in the art to replace the coatings of Diaz with those of Iwato or to add the coating materials of Iwato to those of Diaz in order to provide improved water and oil repellency.
- 4) Diaz discloses coating the nozzle using (RF) glow discharge. However, the method by which a product is formed is not germane to the patentability of a product in a product claim (MPEP 2113) and applicant's claims do not exclude (RF) glow discharge.

5) Iwato fails to disclose use of emulsion to coat the nozzle. However, Iwato discloses and emulsion (page 3, lines 4-16).

Applicant has argued that the examiner has been directed to other references such as Albinson, Griffin and Nakagawa. Applicant further states that these references disclose that it is difficult to bond fluorsilanes to the materials used in nozzles. However, none the references are used in the current rejections and Iwato discloses bonding of fluorosilanes to silicon substrates; silicon substrates are used in Diaz. Moreover, Iwato discloses applicant's exact coating while the other references do not.

Applicant has argued that the examiner has failed to consider the prior art as a whole (MPEP 2141.02 and 2145) including Nakagawa which, according to applicant, disclose similar coatings to applicant but are ineffective in nozzles. However, Nakagawa is not used in the rejections and MPEP 2141.02, 2145 is in regards to **a** prior art reference which must considered in it's entirety and does not refer to all prior art in a field of endeavor including those not used in the rejection. Furthermore, Iwato discloses applicant's exact fluorosilane bonded to silicon and there is simply nothing Iwato that teaches away from Diaz.

Applicant asserts unexpected results. However, applicant has provided no clear and convincing evidence comparing the instant invention to that of Diaz or, more importantly, Iwato. Especially since Iwato discloses applicant's exact coating.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

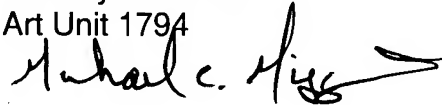
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Miggins
Primary Examiner
Art Unit 1794

A handwritten signature in black ink, appearing to read "Michael C. Miggins", with a long horizontal stroke extending to the right.

MCM
November 7, 2007